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| 09/980,093      | 12/19/2001  | Hiroshi Kashiwa      | HYAE:128            | 8127             |

7590 04/20/2005  
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| EXAMINER |
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GIESY, ADAM

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| ART UNIT | PAPER NUMBER |
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2651

DATE MAILED: 04/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/980,093

Applicant(s)

KASHIWA, HIROSHI

Examiner

Adam R. Giesy

Art Unit

2651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 December 2001.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-14 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 12/19/2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-7, 9-12, and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Diezmann et al. (Diezmann – US Pat. No. 6,044,046).

Regarding claim 1, Diezmann discloses a data recording medium for content recording or reproduction (Figure 1, element 1) including: a reproduction history management circuit (12) which records copyright protection information and manages reproduction and output of a content referring to the copyright protection information at content reproduction (column 2, lines 36-51).

Regarding claim 2, Diezmann discloses all of the limitations of claim 1 as discussed in the claim 1 rejection above and further that the data recording medium is made of a recording layer for recording a content (Figure 2, element 4) and a base material layer (3), wherein the reproduction history management circuit is embedded in a part of the base material layer in a clipping area in the data recording medium (note

the location of element 12 in Figure 2, as it is embedded in the disk), and the clipping area is an area where the data recording medium is fixed with respect to a rotation drive for rotating the data recording medium (Figure 1, element 13).

Regarding claim 3, Diezmann discloses all of the limitations of claim 1 as discussed in the claim 1 rejection above and further that the content is encrypted employing a key and is recorded on the data recording medium (column 7, lines 53-65), and the reproduction history management circuit comprises: a storage part for storing a decryption key for decrypting the content recorded on the data recording medium (column 7, lines 61-65); and a content output management part for restricting the number of output times of the decrypted content in digital format when a content is reproduced from the data recording medium (column 8, lines 7-11).

Regarding claim 4, Diezmann discloses all of the limitations of claim 3 as discussed in the claim 3 rejection above and further that the content recorded on the data recording medium is encrypted employing a key (see column 7, lines 58-63) different in unit of the title (see "execution of selected programs" in column 8, line 13) or the arbitrary data size (see "predetermined amount of data" in column 8, line 12), and the content output management part has a decryption key for each unit of content encryption and restricts the number of output times of the content in digital format in unit of the title or the arbitrary data size (column 8, lines 7-11).

Regarding claim 5, Diezmann discloses all of the limitations of claim 3 as discussed in the claim 3 rejection above and further that when the content is outputted

in digital format, the content output management part updates and records its number of times, compares the number of times with the previously set number of restriction times, and decides not to output the content in digital format when the number of output times of the content in digital format exceeds the number of restriction times (this processes is suggested in the reference in column 8, lines 7-11 – in order to limit the number of times that the data can be accessed, the number of times must inherently be recorded. Diezmann goes further in column 8, lines 23-28 to say that the information on the chip is retrieved and changed – a clear suggestion that information such as the recording of the number of times the data is accessed can be recorded as discussed above).

Regarding claim 6, Diezmann discloses all of the limitations of claim 5 as discussed in the claim 5 rejection above and further that when the content is outputted in digital format simultaneously through plural paths (see column 10, lines 60-62), the content output management part has an output path number storage part for storing the number of paths, and adds the number of paths stored in the output path number storage part to count outputs of the content in digital format, when the number of output times of the content in digital format is counted (since Diezmann already suggests recording the data access times, as discussed in the claim 5 rejection above, it would be inherent in a multiple output system to then record the data access times for all of the outputs onto the chip in a similar fashion as described in the claim 5 rejection above).

Regarding claim 7, Diezmann discloses all of the limitations of claim 1 as discussed in the claim 1 rejection above and further that the content output management personal information for authenticating an owner of the data recording medium and compares externally inputted information with the personal information and permits reproduction of the content only when the comparison results in matching, at reproduction of the content (see column 8, lines 23-32).

Regarding claim 9, Diezmann discloses all of the limitations of claim 1 as discussed in the claim 1 rejection above and further that the content output management part further has a cipher processing part for performing an encryption processing according to a prescribed algorithm and performs authentication by a cipher between the data recording medium and the recording and reproduction apparatus, and suppresses reproduction of the content according to the authentication result (this process is suggested in column 2, lines 36-44 and again in column 8, lines 7-32).

Regarding claim 10, Diezmann discloses a data management system for managing data employing a data recording medium for content recording or reproduction (Figure 1, element 1), wherein the data recording medium has a reproduction history management circuit (12) which records copyright protection information and manages reproduction and output of a content referring to the copyright protection information at content reproduction (column 2, lines 36-51), the recording and reproduction apparatus (read as "CD drive" - throughout reference) has a medium management part which is connected to the reproduction history

management circuit and manages writing or reading of data on the data recording medium (Figure 4, elements 11 and 68), and when the content is reproduced, an encrypted content is decrypted by a decryption key held in the reproduction history management circuit to be reproduced (column 7, lines 58-63), and when it is outputted in digital format, the number of output times is restricted by the reproduction history management circuit (column 8, lines 7-11).

Regarding claim 11, Diezmann discloses all of the limitations of claim 10 as discussed in the claim 10 rejection above and further that the recording and reproduction apparatus has plural digital output openings (see column 10, lines 60-62), the reproduction history management circuit further records the number of paths when the content is outputted in digital format simultaneously through plural paths, and the number of paths is added by the reproduction history management circuit to restrict the number of output times, when the content is outputted in digital format through the plural paths (since Diezmann already suggests recording the data access times, as discussed in the claim 5 rejection above, it would be inherent in a multiple output system to then record the data access times for all of the outputs onto the chip in a similar fashion as described in the claim 5 rejection above).

Regarding claim 12, Diezmann discloses all of the limitations of claim 10 as discussed in the claim 10 rejection above and further that the reproduction history management circuit further records personal information for recognizing an owner of the data recording medium, and when the content is reproduced, externally inputted

information is compared with the personal information held by the reproduction history management circuit, and reproduction of the content is suppressed according to the comparison result (column 8, lines 23-32).

Regarding claim 14, Diezmann discloses all of the limitations of claim 10 as discussed in the claim 10 rejection above and further that the reproduction history management circuit subjects a cipher key to an encryption processing according to a prescribed algorithm, the cipher key to an encryption processing by the same algorithm as that of the reproduction history management circuit, and when the content is reproduced, authentication is performed between the data recording medium and the recording and reproduction apparatus employing the encryption processing by the reproduction history management circuit and the encryption processing of the medium management part, and the medium management part subjects whether or not the content can be decrypted is judged according to the authentication result (this entire process is suggested in column 2, lines 36-44 and again in column 8, lines 7-32).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.



4. Claims 8 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Diezmann et al. (Diezmann - US Pat. No. 6,044,046) in view of Kelley (US Pat. No. 4,719,566).

Regarding claims 8 and 13, Diezmann discloses all of the limitations of claim 7 and claim 12 as discussed in the claim 7 and claim 12 rejections above (respectively). Diezmann does disclose the input of personal information and storing that information on the embedded chip (column 8, lines 23-28). Diezmann does not disclose that the content output management part has the-number-of-mismatch-times holding part which compares the externally inputted information with the personal information and stores the number of mismatch times when the comparison successively results in mismatch, and suppresses reproduction of the content as well as informs the outside of the mismatch when the number of mismatch times exceeds a prescribed value.

Kelley discloses that it is the state of the computer art to, in the event of a password mismatch or pattern of mismatches, to merely deny entry (see the front cover).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the embedded chip in the optical media as disclosed by Diezmann with the method of password authentication as disclosed by Kelley, the motivation being to ensure more security for any sensitive information that may be stored on the optical disc.

*Conclusion*

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Fuentes et al. (US Pat. No. 5,862,117 A) discloses a circuit that can be embedded in an optical medium that is used to deter the production of illegal copies of the optical disc.

b. Lang (US Pat. No. 5,191,611) discloses a method for protecting material on storage mediums (CDROMs) that utilizes a key, access restriction components, and integrated circuits.

c. Walker (US Pat. No. 4,868,736) discloses a code operated access control unit that uses a number of keys.

d. Rutsche (US Pat. No. 6,542,444 B1) discloses a card with a built-in IC that is capable of storing information in CD and DVD formats.

e. Liu et al. (US Pat. No. 6,356,517) discloses an optical disc with a built-in control chip.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adam R. Giesy whose telephone number is (571) 272-7555. The examiner can normally be reached on 8:00am- 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David R. Hudspeth can be reached on (571) 272-7843. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2651

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ARG 4/10/2005



W. R. YOUNG  
PRIMARY EXAMINER